

REMARKS

This paper is submitted in response to the Office action mailed on July 3, 2006. This paper amends claims 1, 3-5, 33, 39, 41-42 and 44-45 and cancels claims 6-8 and 49. Accordingly, after entry of this Amendment and Response, claims 1-5 and 33-48 will be pending.

I. Claim Rejections Under 35 U.S.C. § 112

Claim 49 has been rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement, and as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has cancelled claim 49, thus obviating this rejection.

II. Claim Rejections Under 35 U.S.C. § 103

Claims 1-8 and 33-49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over “Java Performance Turing” by Shirazi (hereafter “Shirazi”) in view of “The Java Virtual Machine Specification” by Lindholm et al. (hereafter “Lindholm”) and further in view of “Path Profile Guided Partial Dead Code Elimination Using Prediction” by Gupta et al. (hereafter “Gupta”). A prima facie case of obviousness requires that “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings.” In addition, the combination “must teach or suggest all the claim limitations.” See MPEP § 2143. Further, “[i]f [the] purposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the purposed modification.” See MPEP § 2143.01(V) (emphasis provided). For the reasons recited below, it is respectfully submitted that the combination of Shirazi, Lindholm and Gupta does not make any of the above listed claims obvious.

A. Independent claims 1, 33, 41 and 44 are patentable over Shirazi in view of Lindholm and further in view of Gupta

Claims 1, 33, 41 and 44 are independent claims from which all other pending claims depend. Accordingly, our initial arguments will focus on the independent claims.

1. The combination of Shirazi, Lindholm and Gupta is unsatisfactory for its intended purpose because the Java Virtual Machine exception_table cannot be modified

Applicant submits that the modification of Lindholm as combined with Shirazi and Gupta, purposed by the Examiner is an inoperable combination. In regard to claim 1, page 4 of the Office Action states that “Lindholm teaches creating an entry in a fault target translation table for null pointer conditions that correspond to the null pointer condition

check ... [by] each entry in the exception_table array describe[ing] one exception handler in the code array.” Applicant respectfully disagrees with the Examiner’s assertion. Claims 33, 41 and 44 include nearly the same limitations and are rejected on the same grounds as claim 1.

The exception_table in the Java virtual machine (JVM) is a table which includes a set of JVM semantic constraints. When a program violates these semantic constraints the JVM signals an error to the program as an exception. See *Lindholm*, page 39, section 2.16. These exceptions (i.e. NullPointerException) are not able to be modified by user operations (i.e. compiler optimizations). See *Lindholm*, page 122, lines 4-8. Accordingly, the exception_table in Lindholm would be inoperable if it was modified by creating a new entry, as in creating an entry in the fault to target translation table of claim 1. Also, such a modification would render the exception_table unsatisfactory for its intended purpose.

As such, there is no suggestion or motivation to combine Shirazi, Lindholm and Gupta because the exception_table of Lindholm would be rendered unsatisfactory for its intended purpose. Therefore, for at least this reason, claim 1 is patentable under 35 U.S.C. § 103 over Shirazi in combination with Lindholm and Gupta.

2. Lindholm fails to disclose a fault to target translation table

Even if the Examiner considers the purposed combination of the references proper, not all limitations of claim 1 are disclosed. Namely, applicant submits that Lindholm does not disclose “a fault to target translation table for null pointer conditions that correspond to the null pointer condition check if the null pointer condition check infrequently encounters null pointer conditions” as recited by claim 1. In contrast, Lindholm discloses an exception_table that includes an array of default exception handlers for the JVM. See *Lindholm*, page 122. Applicant submits that an exception_table is not the same as a fault to target translation table. Specifically, the exception_table in Lindholm merely handles default exceptions included within the constructs of the JVM. See *Lindholm*, page 39, section 2.16. In contrast, the fault to target translation table includes null pointer conditions that correspond to null pointer condition checks. Accordingly, all limitations of claim 1 are not disclosed, taught or suggested by the purposed combination of Shirazi, Lindholm and Gupta. Thus, for at least this additional reason, claim 1 is patentable under 35 U.S.C. § 103 over Shirazi in combination with Lindholm and Gupta.

3. Claims 33, 41 and 44 are non-obvious

As set forth above, independent claims 33, 41 and 44 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Shirazi in combination with Lindholm and Gupta. Claims 33, 41 and 44 substantially include the same limitation of claim 1, namely, “creating an entry in a fault to target translation table for null pointer conditions that correspond to the null pointer condition check if the null pointer condition check infrequently encounters null

pointer conditions." For at least the same reasons recited above with respect to claim 1, there is no suggestion or motivation to combine Shirizi, Lindholm and Gupta, and not all limitations of the claims are taught by the combination. For at least these reasons, claims 33, 41 and 44 are patentable under 35 U.S.C. § 103 over Shirazi in combination with Lindholm and Gupta.

B. Dependent claims are non-obvious

Dependent claims 2-5, 34-40, 42-43 and 45-48 depend upon and contain all the limitations of independent claims 1, 33, 41 and 44, respectively. Therefore, for at least the reasons mentioned above, the combination of Shirazi, Lindholm and Gupta fails to disclose each and every limitation of claims 2-5, 34-40, 42-43 and 45-48. As such, claims 2-5, 34-40, 42-43 and 45-48 are patentable under 35 U.S.C. § 103 over Shirazi in combination with Lindholm and Gupta.

III. Conclusion

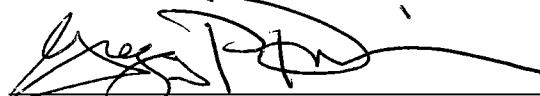
This Amendment is submitted contemporaneously with a petition for a three-month extension of time in accordance with 37 CFR § 1.136(a). Accordingly, please charge Deposit Account No. 04-1415 in the amount of \$1,020.00, for three-month extension of time fee. The Applicant believes no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 accordingly.

The Applicant thanks the Examiner for his thorough review of the application. The Applicant respectfully submits the present application, as amended, is in condition for allowance and respectfully requests the issuance of a Notice of Allowability as soon as practicable.

If the Examiner should require any additional information or amendment, please contact the undersigned attorney.

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Respectfully submitted,



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